

Grades

3 & 4

National Park Service

Santa Monica Mountains National Recreation Area



The Chumash:

A Changing People,

A Changing Land

TEACHER MANUAL

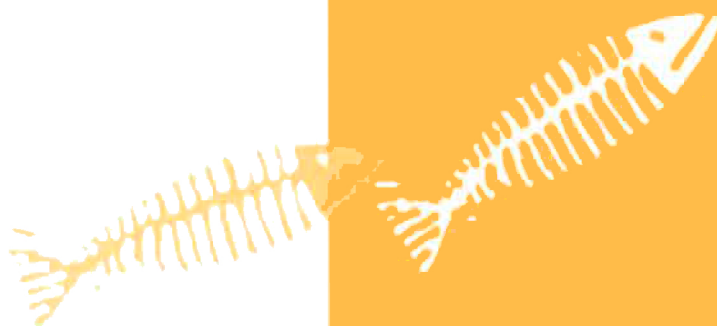


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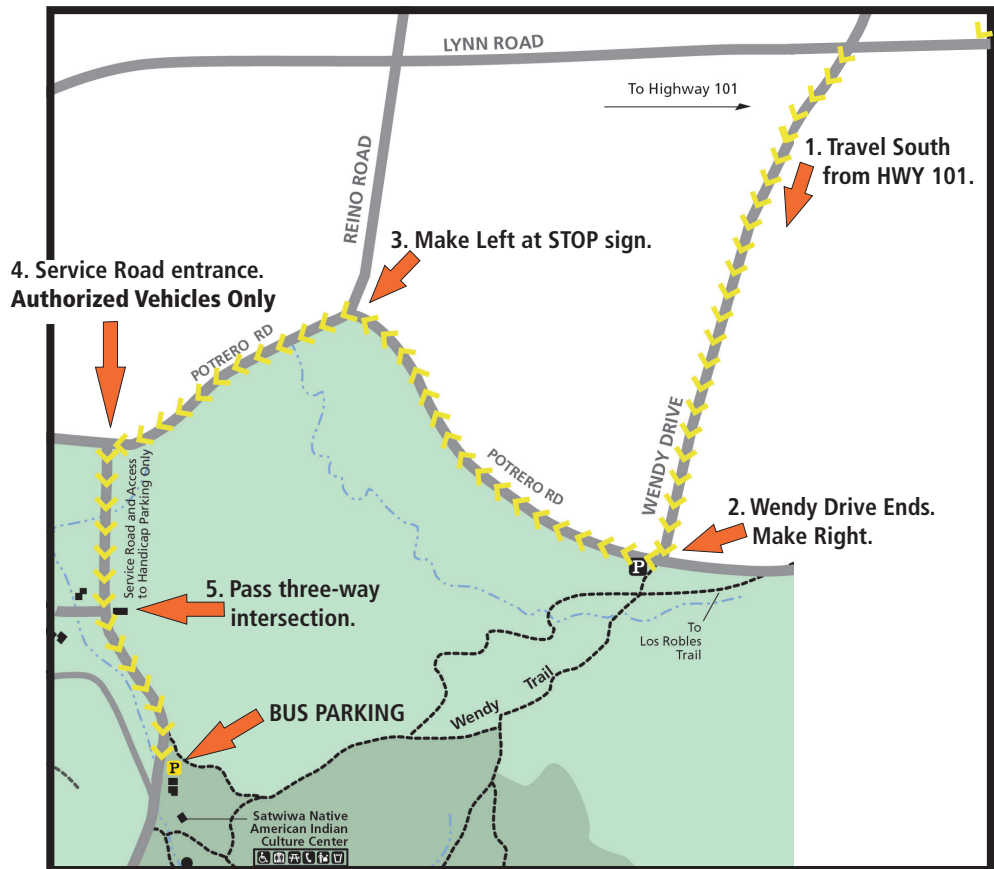
Map and Directions

Warning!!! There are two (2) Potrero Roads!! Potrero has been split into two (2) sections. One section became an extension of Lynn Road as it moves west, passing the RSV/Satwiwa Main Entrance at Via Goleta (Not the entrance for the Biodiversity Program), it then runs down Long Grade Canyon to Camarillo.

TEACHER: Please **DO NOT USE** Smart Phones or GPS for directions. These devices will direct users to the Visitor Center causing groups to get **lost** and be **late**. To ensure you take the correct route **bring this map the day of!!!**

Please give a copy of this map to driver(s) and note that the park speed limit is 15 mph.

Note: If you are driving private vehicles, please do not block resident's vehicles which park perpendicular to the driveway.



This section of Potrero Road travels west through Hidden Valley; passes Wendy Drive, Reino Road, Rancho Sierra Vista/Satwiwa at 4126 Potrero Road (Your Destination) and then comes to a Dead End!!! It no longer continues!!!

1

Program Site: **Rancho Sierra Vista/Satwiwa**

4126 Potrero Road, Newbury Park, CA 91320
805-370-2348

Directions from the East or West: (Yes, East or West!)

1. From the 101 freeway, exit **Wendy Drive**. Turn left at stoplight onto **Wendy Dr.** Continue south on **Wendy Dr.** until it **ends** at stop sign (2.6 miles).
2. Turn right on **Potrero Road**.
3. Go 0.3 miles to stop sign. Turn left to continue on **Potrero Road** (on the right will be Reino Road).
4. Follow fence on left (0.2 miles) to a 'Service Road' (look for sign that says: **Authorized Vehicles Only**), turn left.
5. Follow road through, park in gravel lot before the Service Road ends at a gate. A staff member will meet you and direct you further.

➡ See Note on left!

Arrival Time: Approximately 10 AM.

Note: Leave lunches, backpacks, and all non-essentials on bus or in cars during program. Staff members will help your group assemble.

Teacher Check List

- | | |
|--|--|
| <input type="checkbox"/> Divide into three groups | Student's should remain in their own classes. The ideal is three classes of 20. Two large classes should be divided into a third group.
<i>Island Coastal Inland</i> |
| <input type="checkbox"/> Make Name Tags | Write English name in large letters and Chumash name and translation in smaller letters. Note: Becoming familiar with Chumash words enhances the student's cultural experience. See also <i>Name Tag Activity</i> on page 3. |
| <input type="checkbox"/> Lunch/Water | Picnic facilities available. However, food and beverages are not sold. Although water is available, there are no water stops during the program, so students may bring their own- Reusable containers reduce waste. Rangers are unable to remain during lunch. |
| <input type="checkbox"/> Clothing | Sun/ rapid weather changes: long pants, walking shoes, hats and jackets. Sunscreen! Check Weather Forecast! |
| <input type="checkbox"/> Supervision/ Chaperones | Provide one adult per every ten students for safety and supervision. Chaperons need to be adequately dressed, willing to help with the program and group control, and able to hike.
<i>Discipline is the responsibility of the teacher and chaperons. Also, adults should avoid answering questions directed at students or asking questions that detract from the program.</i> |
| <input type="checkbox"/> Cameras | Adults may bring cameras, but student use (including binoculars) is discouraged. |
| <input type="checkbox"/> Cell Phones | Cell phones must be turned off or put on silent. Please no talking or texting. |
| <input type="checkbox"/> Rules/Safety | Students should know that everything is protected within the park. Disturbing wildlife, picking flowers, and throwing/collecting rocks or anything else is not allowed and is cause for removal from the program.

Children and chaperons should also be alert to all safety messages given <i>upon arrival</i> . |
| <input type="checkbox"/> Restrooms | Facilities are available at the site. |
| <input type="checkbox"/> Weather | Rain cancels the program. Confirm with the Education Office. |

Name Tag Activity

In California, one way we divide Native people into tribes is by the language they speak. The Chumash speak several varieties or dialects of the Hokan language. Their neighbors to the south, the Gabrielino/Tongva, speak a version of the Shoshone language.

The name **Chumash** comes from the Hokan word, *michumash*, meaning “the makers of shell bead money.” The *michumash* were the people of Santa Cruz Island, who made most of the Chumash shell beads from olivella shells (small snails). In 1891, the name was shortened to *Chumash* by J.W. Powell, who was studying these people.

Like the Spanish language, Chumash vowels have only one sound each:

“a” as in *ball* “e” as in *bet* “i” as in *bee* “o” as in *toe* “u” as in *boot*



Animals

bat — **makal**
 bear — **khus**
 blackbird — **chok**
 coyote — **ashka shniwish**
 crayfish — **qoloy**
 eagle — **kaslow**
 falcon — **helek**
 fish — **lahus**
 fox — **haw**
 goose — **wawa**
 gopher — **tapo**
 hawk — **woy**

lizard — **pocoyi**
 mountain lion — **yum**
 owl — **muhu**
 pelican — **hew**
 rabbit — **ma**
 rattlesnake — **qshap**
 raven — **qaq**
 swordfish — **elyewun**
 vulture — **onoq**
 weasel — **monsow**
 whale — **pahat**
 woodpecker — **pulakak**

Nature

canyon — **onomyo**
 Earth Mother — **Hutash**
 land — **shup**
 Milky Way — **Alchupo ash**
 meadow — **nakhuwi**
 moon — **auhai**
 sky — **alapay**
 sun — **alishaw**
 water — **o**
 willow — **kahaw**
 wind — **sahkut**
 world — **chupu**




Objects


abalone jewelry — **huqpey**
 arrow — **ya**
 arrowhead — **sulupe**
 bead money — **alchum**
 bull roarer — **alahtumumu**
 demon — **nunashush**

fishhook — **cisha**
 knife — **tiho**
 paint — **ahimonush**
 rattle — **ciwis**
 shell cup — **shtuliwash**
 tar — **pismu**
 village — **apanus**

People

child — **ch-ich-i**
 man — **uhuy**
 spirit — **ahushush**
 woman — **eneq**

 Pick one or two of these Chumash words to make your **name tag** on page 5:

 Use the words above and these words with **Language Activity** on page 40:

Questions

1. One way to divide Native people into tribes is by_____.
2. Two different native groups of people living in southern California are the _____ and _____.
3. *Michumash* means “the makers of shell bead money.” Where did they live?

4. The name *michumash* was shortened to _____.
5. Like Spanish, the Chumash language has _____ sound per vowel.
6. From the word list, pick a word to use as a Chumash name for yourself.

My Chumash Name:_____

I like this name because_____



Teacher:

Answers on page 8 and
optional **Language Activity**
on page 40.

Name Tag

Teachers: Divide your students into 3 equal groups or classes (Island, Coastal and Inland). Copy, cut and pin tags to shirts before arrival at site.

cut ✂

ISLAND

Your Name _____

Chumash Name _____

English Meaning _____

cut ✂

COASTAL

Your Name _____

Chumash Name _____

English Meaning _____

cut ✂

INLAND

Your Name _____


Chumash Name _____

English Meaning _____

cut ✂

Pre-Quiz/Post-Quiz

Instructions: Fill in or underline the best answer for each question.

 Take this quiz again
after your field trip to see
how much you have learned!

1. The _____ people lived in the western end of the Santa Monica Mountains.

A. Gabrielino/Tongva B. Chumash C. Yokuts

2. How did they get their food? (circle answer)

A. hunting and gathering B. farming C. growing corn

3. The plant food most often eaten by these people was _____.

A. corn B. sage C. acorn

4. _____ were most often hunted.

A. buffalo B. deer C. cattle

5. What did these people use to hunt for food?

A. gun B. bow and arrow C. knife

6. _____ was used to make arrowheads.

A. rock B. metal C. plastic

7. The _____ tree produces acorns.

A. sycamore B. oak C. cottonwood

8. What is the name of the house these people lived in?

A. hogan B. ap C. tipi



9. The most common material used to build the framework for the house is _____ . **A. willow B. pine C. redwood**

10. Passing on lessons of life through stories was important to the Chumash.
True False

11. Acorns are good to eat right off the tree. **True False**

12. The Chumash did not need plants and animals in order to survive.
True False

13. Tule and cattail are two materials used to cover the Chumash house.
True False

14. Plants can be used for medicine. **True False**

15. Abalone was used as a food and the shells were made into bowls.
True False

16. Rabbits and squirrels were not hunted by the Chumash. **True False**


 **Teacher:**
Answers on page 8

17. Deer was only hunted for its meat and the rest was thrown away.
True False

18. Asphaltum (or tar) can come from the ocean. **True False**

19. We need plants and animals to survive. **True False**


Questions

 Answers
for page 4.

1. One way to divide Native people into tribes is by **language**.
2. Two different native groups of people living in southern California are the **Chumash** and **Gabrielino/Tongva**.
3. **Michumash** means “the makers of shell bead money.” Where did they live? **Santa Cruz Island**.
4. The name **michumash** was shortened to **Chumash**.
5. Like Spanish, the Chumash language has **one** sound per vowel.

Pre-Quiz / Post Quiz

1. **B. Chumash**
2. **A. hunting and gathering**
3. **C. acorn**
4. **B. deer**
5. **B. bow and arrow**
6. **A. rock**
7. **B. oak**
8. **B. ap**
9. **A. willow**
10. **True**
11. **False**
12. **False**
13. **True**
14. **True**
15. **True**
16. **False**
17. **False**
18. **True**
19. **True**

 Answers
for page 6.

National Park Service



The concept of National Parks is a uniquely American invention. The first, Yellowstone, was created in 1872. The National Park Service was established in 1916 to protect and preserve the growing number of natural, historical and culturally important and significant places in these United States of America. Our parks include battlefields, homes of famous people,

deserts, mountains and seashores. Currently there are over 385 National Park sites in the United States and its territories.

Santa Monica Mountains National Recreation Area

Playing host to a metropolitan population of over 12,000,000 people, the Santa Monica Mountains National Recreation Area lies within Los Angeles and Ventura Counties. This National Recreation Area was created by Congress in 1978 to *"manage and preserve the scenic, natural and historical setting"... and to "contribute to the health of the airshed of the metropolitan basin."*

Humans have continuously occupied the area for thousands of years and have survived on the abundant natural resources of the area. The Chumash and Gabrielino/Tongva people were the first human inhabitants, followed by the Spanish/Mexican culture. Subsequently, ethnic and cultural groups numbering in the hundreds followed, making this one of the most culturally diverse societies in the world.



Education Programs

At Santa Monica Mountains National Recreation Area, several themes are emphasized in our *Parks as Classrooms* programs:



3rd & 4th Grades —

The Chumash:

A Changing People, A Changing Land

is a biological diversity program focusing on Native American uses of local plants and animals.



4th & 5th Grades —

One Land: Many People, Many Ways

is a cultural heritage program looking at similarities and differences in Native American, Spanish Rancho and modern cultures.



6th, 7th, & 8th Grades —

Parks as Laboratories:

Studies of the Land, Air & Water

applies science skills to real park issues.



1st through 12th Grades —

National Park Legacy

explores geography and cultural heritage in various National Parks.




9th, 10th, 11th, & 12th Grades —

National Park Labs:

Studies of Wildland Fire Ecology

applies science and technology skills to parkland issues.

 For more information, call the Education Office at (805) 370-2348.

Program Description

This two hour, outdoor program contains three stations that focus on the use of nature by the Chumash people of Satwiwa. Natural resources critical to their survival are examined, from deer to asphaltum (tar). Students develop an appreciation for their own connections to the land. One envisions the Santa Monica Mountains as they were for thousands of years and learns of recent changes. Each station helps students understand the key to Chumash survival. The variety of plants and animals present is called **biological diversity** (or *biodiversity*).

1

Station 1 During a short walk, Chumash plant use is investigated by viewing, smelling, tasting, and touching several plants used for medicine, food, and building homes.

2

Station 2 Numerous uses of animals in the daily lives of the Chumash are demonstrated. Students learn the relevance of animals to their own lives. The use of natural resources in tool making is examined. Using simulated Native American Indian pump drills, students make a small abalone shell necklace.

3

Station 3 A creation story is told that some Chumash believe explains their origin on Santa Cruz Island. In the “Rainbow Bridge” story, the interpreter draws students into the narrative by asking them to think about and share their ideas on population growth, use of natural resources and conservation.

◆ Please review *Map & Directions* (page 1) and *Teacher Checklist* (page 2).

◆ Groups begin their experience when greeted by a uniformed Park Ranger for a safety message and an introduction to the National Park Service and the Santa Monica Mountains National Recreation Area.

◆ Three interpreters simultaneously rotate through the three stations, each with a group of students.

Theme, Goals & Objectives

Theme

The Chumash people successfully survived in the Santa Monica Mountains for thousands of years as a result of the diversity of plants and animals present (biodiversity).

The biodiversity of the mountains is different today than it was when the Chumash lived on the land. Could they survive on the land today, or has it changed too much? The biodiversity of planet Earth is being altered constantly. In the future, will we be able to live in our environment, or are we changing it too much?

Goals

- ◆ To inform students that biodiversity enabled the Chumash to survive for thousands of years and enables us to exist today.
- ◆ To demonstrate that we are just as dependent on the ecosystems around us as the Chumash, even though we are generally farther removed from the natural world.
- ◆ To develop an understanding of the Chumash culture and its relationship to present-day society.
- ◆ To encourage students to support biodiversity of native flora and fauna.
- ◆ To inform students that national parks help protect and preserve natural and cultural resources.

Objectives

After visiting the park and using activities in this curriculum guide, students will be able to:

- ◆ List three animals the Chumash hunted and how they were used.
- ◆ List three plants the Chumash gathered and why.
- ◆ Describe three ways to help conserve nature and natural resources, and protect biological diversity.

Background Information

Satwiwa: A Chumash Village

For many centuries, the inland valleys, mountains, islands and coast that are now Los Angeles and Ventura Counties sustained the Chumash and Gabrielino/Tongva cultures. It is believed the area of Rancho Sierra Vista/Satwiwa was part of a Chumash trade/travel route. Satwiwa, which means “*the bluffs*,” was the name of a Chumash village located near here. To reflect this heritage, a portion of the Santa Monica Mountains National Recreation Area has been designated the *Satwiwa Native American Indian Natural Area*.



Teacher:

This information may be shared with your class and chaperons.

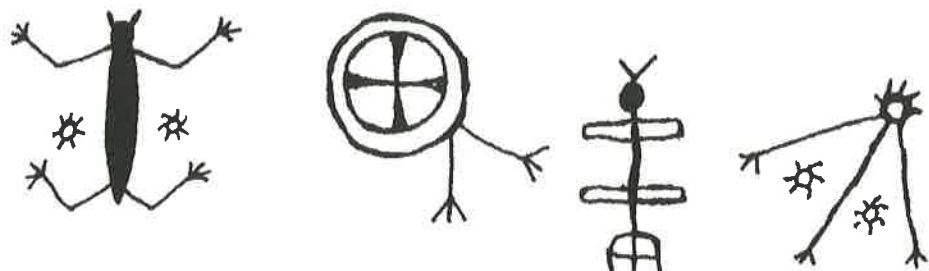
Here, descendants of the Chumash, Gabrielino/Tongva, and other Native People of all tribal affiliations perpetuate many of their traditions and share their culture and current accomplishments with the public.

Biodiversity: The key to survival

13

Nearly every plant and animal found in the Santa Monica Mountains was used by the Chumash people. **Biological diversity** (or **biodiversity**) enabled the Chumash to survive for thousands of years and have a life complete with technology, tools, utensils, art, music and games. A rich, complex culture and social life was developed. Their money system, using olivella shell beads, made them among the wealthiest of California tribes.

These accomplishments can be attributed to the natural world. This world was the source of their food, clothing, homes and tools. It inspired their religious beliefs, music and ceremonies. The Chumash respected and even feared the natural world, for their lives depended on it every day. It could bring them abundance, or threaten them with famine, flood, or disease. At the time of the Spanish arrival, it is estimated over 20,000 Chumash inhabited the coast from Los Angeles to Morro Bay and inland to the edge of the Central Valley. This land area is among the richest in the world and provides substantial resources.

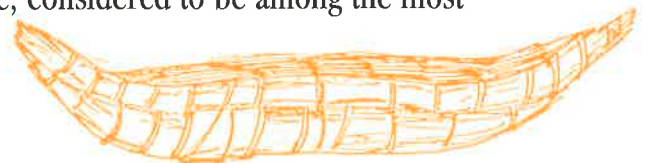


Because of the richness of their environment and their success in hunting and gathering, the Chumash had no need to plant crops as did so many other Native American groups. Agriculture would also have required more time than was necessary for hunting and gathering in such a rich environment. Acorns and other nuts, seeds, roots, bulbs and leaves were gathered from the vast variety of native plants. Plentiful wild game included deer, bear, rabbits, birds, seals, otters, fish and shellfish. Even ground squirrels and grasshoppers were trapped and eaten.

Nature supplied the materials necessary for making the Chumash house, or *ap*. Tule and willow were gathered to construct these thatched homes that look like upside-down baskets. An occasional beached whale provided both a feast and rib bones to create an arched doorway. Locally gathered plants were used to make beds, traps, and beautiful baskets. Animals were eaten and their hides and bones used for tools, clothing, fishhooks and bows. Shells were important for dishes, ornaments, and money. Driftwood logs, preferably redwood, were gathered to construct ocean-going plank canoes, or *tomols*. They were then lashed together with red milkweed and sealed with asphaltum (tar), pine pitch and red ochre. No material was wasted since these resourceful and creative people found a use for nearly everything.

Since life's necessities were met with such ease in the Santa Monica Mountains, there was time for leisure activities: playing games, making music, arts, crafts and storytelling. Dice were made from halved black walnut shells filled with asphaltum and decorated with abalone shell pieces. Rattles were made from the bones and hooves of deer. Paint was made from minerals such as diatomaceous earth, hematite (rock containing iron ore) and charcoal with paintbrushes made from fibers of the soaproot and yucca plants. Stories were told to teach the relationship between man and the natural and spiritual world.

The Chumash, then, were able to go beyond survival and develop a truly fascinating and unique culture, considered to be among the most advanced in North America.



Biodiversity Today

Upon the arrival of the Europeans a few hundred years ago, the landscape of the Santa Monica Mountains changed drastically. No longer was the land prized for its unique diversity. The multitude of plants and animals once so cherished by the Chumash were, to some eyes, seen as being in the way of progress.

Native animals like bears, mountain lions and coyotes were killed by ranchers to protect their livestock. They were also displaced by non-native animals that were raised on ranches and farms as livestock or kept as pets. These non-natives often escaped and out-competed native animals for food and space. Native plants were cut down or removed to make room for grazing cattle and development. Introduced species of plants often aggressively out-compete native species for space, causing them to become endangered or extinct.

Today, common threats to local and global biodiversity also include human population growth, water quality, air polluted by carbon dioxide emissions, land use issues (including habitat loss and landfill space), depletion of fossil fuels and hazardous substance disposal.

Just as biodiversity enabled the Chumash to survive, it enables us to survive today. Being further removed from the natural world in our daily lives, we can easily forget how dependent we are on the Earth's resources.

Today's Chumash

Although no up-to-date census exists, it is estimated that over 5,000 people of Chumash ancestry live in Los Angeles, Santa Barbara, San Luis Obispo and Ventura Counties with others dispersed throughout the United States and the world. Many of these people keep their traditional culture alive by engaging in craft activities, initiating projects to ensure their sacred grounds are not disturbed, and sharing with others their history and traditions.

Members of Chumash clans and other Native Americans still gather at Satwiwa. They share with schools, other educators and public groups information about their traditions and respect for the natural world. Much knowledge has been handed down through the generations. Of utmost importance are learning the keys to our survival and keeping the natural world diverse and pure.

Village Life

The Chumash built their villages near fresh water. Water is needed for drinking and bathing. Animals also use the water so it is a good place to hunt. Many useful plants and trees grow near fresh water. Some plants are used for food, medicine, tools or baskets. Others are needed for their homes.

Baskets were very important to the Chumash. They used them for storage, as hats, and even to hold water and cook in! Asphaltum, or tar, was melted on the inside to make them waterproof. For cooking, specially kept rocks were heated and placed in with the water and food. Because the baskets were so well made, pottery wasn't needed. They also made excellent trade items and are considered among the finest basketmakers in the world.

The dome-shaped Chumash house is called an *ap*. The round frame is made from willow tree poles. This willow frame is covered with long tule (*TOO-lee*) or cattail leaves. The doorway faces away from the prevailing wind. There is a small fire pit in the center; a hole is left above the fire so smoke can escape. During a rainstorm, the smoke hole and doorways are covered with animal skins.

An *ap* can be divided into rooms. The walls are made of woven tule mats hung from the ceiling. Beds are made by stacking cushion-like tule mats. Animal furs are used for blankets. A single-family *ap* may be 12 to 20 feet across. The chief's *ap* would be much larger, 35 feet wide or more. Many of the chief's relatives would also live there.

A Chumash village had many different kinds of buildings and areas. Some of these are still built and used by the Chumash today:

- ◆ Large *ap* for chief (*wot*) and his family
- ◆ Granary near chief's *ap* for storing food
- ◆ Family *aps*
- ◆ Sweathouse for cleansing the body and spirit
- ◆ Playing field about the size of a football field
- ◆ Dance ground for ceremonies
- ◆ Cemetery next to village
- ◆ Craft and work area with open-sided shelters (introduced by the Spanish and called *ramadas* in their language) for making tools and baskets, grinding acorns, etc.



Village Life

1. Name three things plants and trees are used for by the Chumash.

(1) _____

(2) _____

(3) _____



Teacher:

Answers on page 22.

2. _____ was used to waterproof Chumash baskets.

3. Food cannot be cooked in baskets. **True False**

4. The Chumash house is called:

(a) hut (b) tipi (c) hogan (d) ap (e) wigwam

5. Aps are round because willow trees can _____.

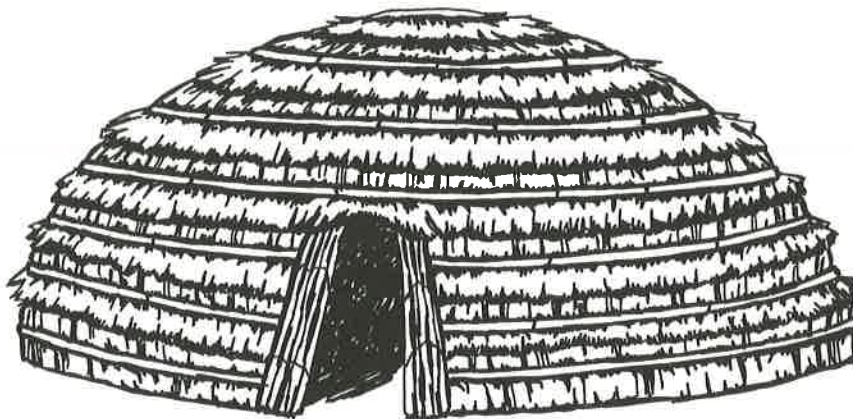
6. Aps can be covered with (pick two):

(a) tule (b) shingles (c) cattail (d) tar and rocks (e) metal

7. Ap walls and beds are made from woven

_____.

8. Single-family aps were as large as 35 feet across. **True False**



Village Life *cont.*

9. What kinds of buildings are included in *our* cities? What materials are used to build them? _____

10. How are plants useful to us today?

Activity:

On another piece of paper, draw a picture of a Chumash village. Include all the buildings and areas listed on page 16. Don't forget to put in a creek, trees, bushes, rocks, hills, animals, etc.

Bricks of the Mountains

Important Idea!

Biological Diversity

Bio means life.

Biology is the study of life.

Biological has to do with the study of living things.

Diversity means variety, more than one kind, or many kinds.

Biological Diversity = Variety of living things

Living things come in millions of shapes, sizes, and colors. They live in many different places. Scientists call this variety *biodiversity*. Each animal or plant, large or small, has its own special role in the world. These plants and animals are all connected, and they depend on each other.

The Chumash needed this variety to survive. We do, too. Losing a plant or animal from the world (called *extinction*) is like taking a brick out of a house. If you take one away, it weakens the whole house.

List of Plants & Animals (shown on page 20)

- | | |
|-----------------------|------------------------|
| 1. Bush Poppy | 17. Octopus |
| 2. Bat | 18. Raccoon |
| 3. Striped Shore Crab | 19. Frog |
| 4. Rattlesnake | 20. Fish |
| 5. Acorn (oak) | 21. Snail |
| 6. Ants | 22. Human |
| 7. Dragonfly | 23. Mountain Lion |
| 8. Great Blue Heron | 24. Monarch butterfly |
| 9. Spider | 25. Coyote |
| 10. Sea Star | 26. Anna's Hummingbird |
| 11. Harbor Seal | 27. Chia (sage) |
| 12. Western Whiptail | 28. Ground Squirrel |
| 13. Dolphin | 29. Beetle |
| 14. Mule Deer | 30. Whale |
| 15. Anemone | 31. Tick |
| 16. Red-tailed Hawk | 32. Quail |

Bricks of the Mountains *cont.*

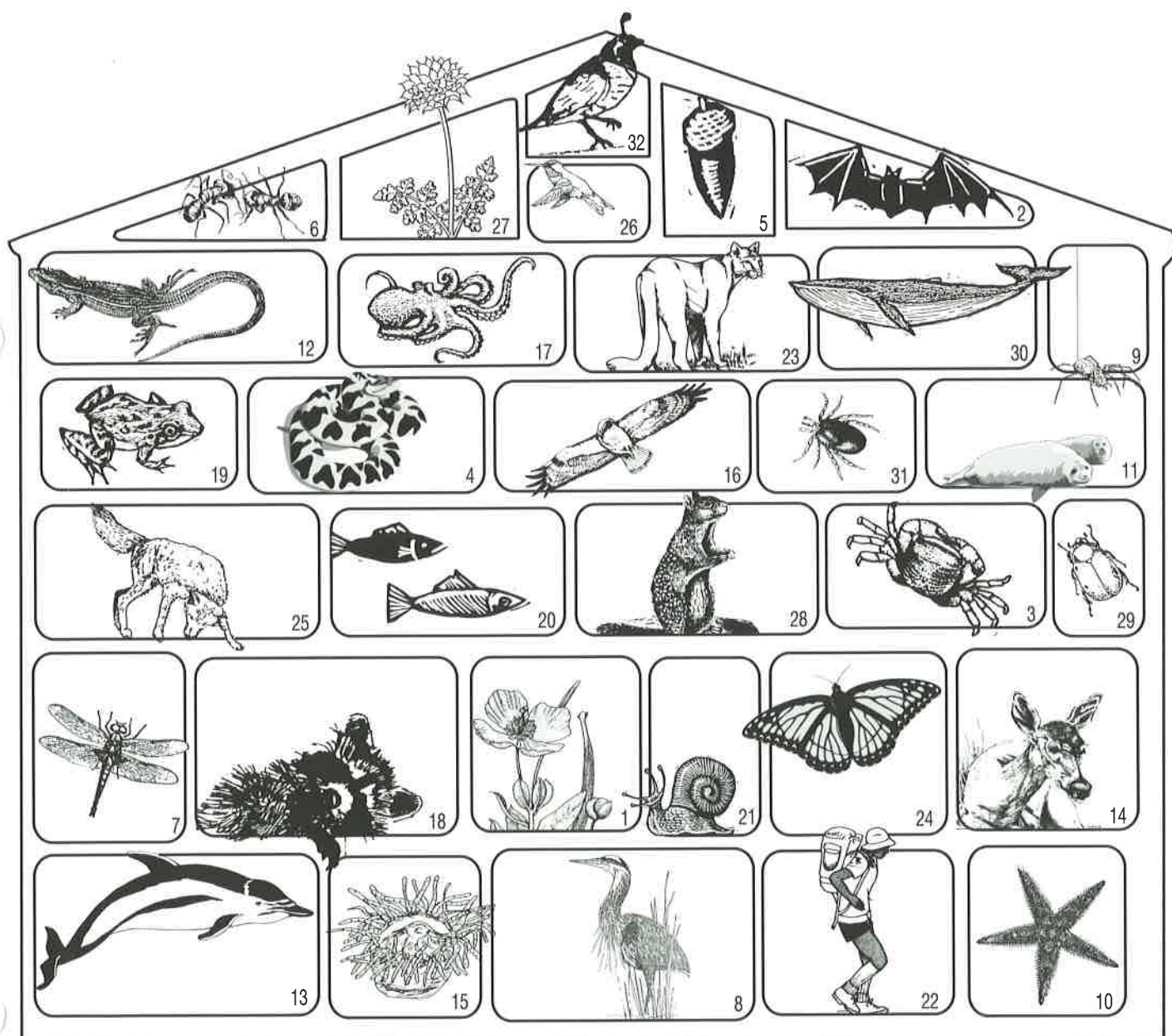
Color the bricks in the house on this page. These kinds of plants and animals (called *species*) can all be found in the Santa Monica Mountains National Recreation Area. **Start with number one and color the bricks in order.** Think of each colored brick as a species becoming extinct.




Teacher:

Answer on page 23.

Which bricks that you colored might cause the house to fall down if they were removed? _____



Chumash Word Search

 These words are hidden. The words are horizontal (left to right), vertical (up and down) or diagonal (left to right at a downward angle). Answers on page 24.

abalone

acorn

ap

arrow

asphaltum

basket

bow

cattail

chia

Chumash

condor

coyote

deer

drill

hawk

Malibu

oak

obsidian

rabbit

sage

Satwiwa

scraper

sinew

soapstone

tomol


tule

willow

yucca

E	A	B	A	L	O	N	E	R	A	O	S
C	C	S	R	U	R	A	B	B	I	T	O
A	O	E	P	C	O	N	D	O	R	S	A
T	R	I	C	H	U	M	A	S	H	A	P
T	N	S	C	R	A	P	E	R	O	T	S
A	M	U	B	M	A	L	I	B	U	W	T
I	T	B	A	S	K	E	T	O	A	I	O
L	C	E	T	O	M	O	L	U	P	W	N
H	O	B	S	I	D	I	A	N	M	A	E
D	Y	A	O	Z	E	W	H	Q	I	B	X
B	O	U	S	W	E	I	S	A	G	E	C
X	T	T	C	D	R	L	I	R	W	Y	H
O	E	U	P	C	N	L	N	R	O	K	I
D	R	I	L	L	A	O	E	O	A	K	A
R	V	L	A	E	Z	W	W	W	C	E	U

Village Life

 Answers
for pages 17-18.

1. Name three things plants and trees are used for by the Chumash.

Pick three: food, tools, baskets, homes, medicine

2. Asphaltum was used to waterproof Chumash baskets.

3. Food cannot be cooked in baskets. **False**

4. The Chumash house is called: **(d) an ap**

5. Aps are round because willow trees can bend.

6. Aps are covered with (pick two): **(a) tule (c) cattail**

7. Ap walls and beds are made from woven tule mats.

8. Single-family aps were as large as 35 feet across. **False**

9. What buildings are included in our cities? What materials are used to build them? **answers may vary**

10. How are plants useful to us today? **answers may vary: food, medicine, building materials and/or clothing**

Bricks of the Mountains

Answer:

The removal of bricks between #10 - #14 will cause the house to fall down (but accept any reasonable combination of bricks).

Point out to your students this house is built out of local “bricks,” or species. They should realize this can be shown on a global scale with “bricks of the earth” involving all living things.

Optional discussion questions (Teacher-directed):

1. What happens when a species isn’t completely removed, but the number of animals or plants in a population becomes low?


“The house” can weaken, long before the species becomes extinct. Problems especially arise when other factors become involved, such as drought, food shortage, disease or habitat loss.

2. Look at brick #22. What happens to people if the house falls down? At Satwiwa, students are encouraged to decide if there is enough biological diversity in the Santa Monica Mountains for the Chumash to live off the land as they did in the past. With the land drastically changed and the decline in biodiversity, perhaps a few people could survive, but not a large population.


While the extinction of human beings seems unfathomable, we know losing species changes our lives. When we lose species, we forfeit possible cures for diseases, atmospheric changes occur, and our lives aren’t as rich with natural diversity. If human population continues to rise and the loss of biological diversity continues, life as we know it will not exist.

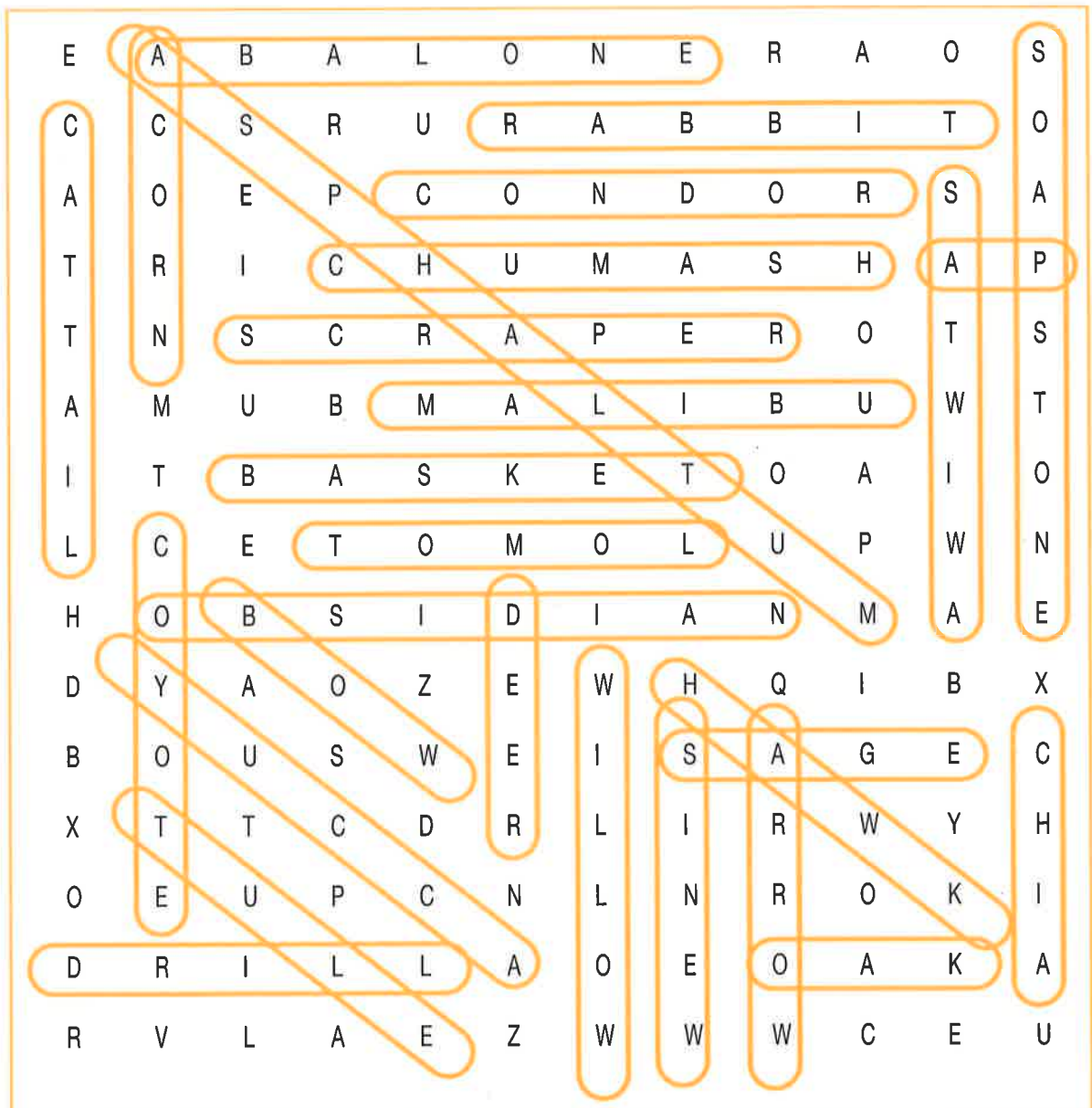
Lesson Extension:

As a class project, make a large mural with “bricks of the world.”

 Answer
for page 19.

Chumash Word Search

 Answers
for page 21.



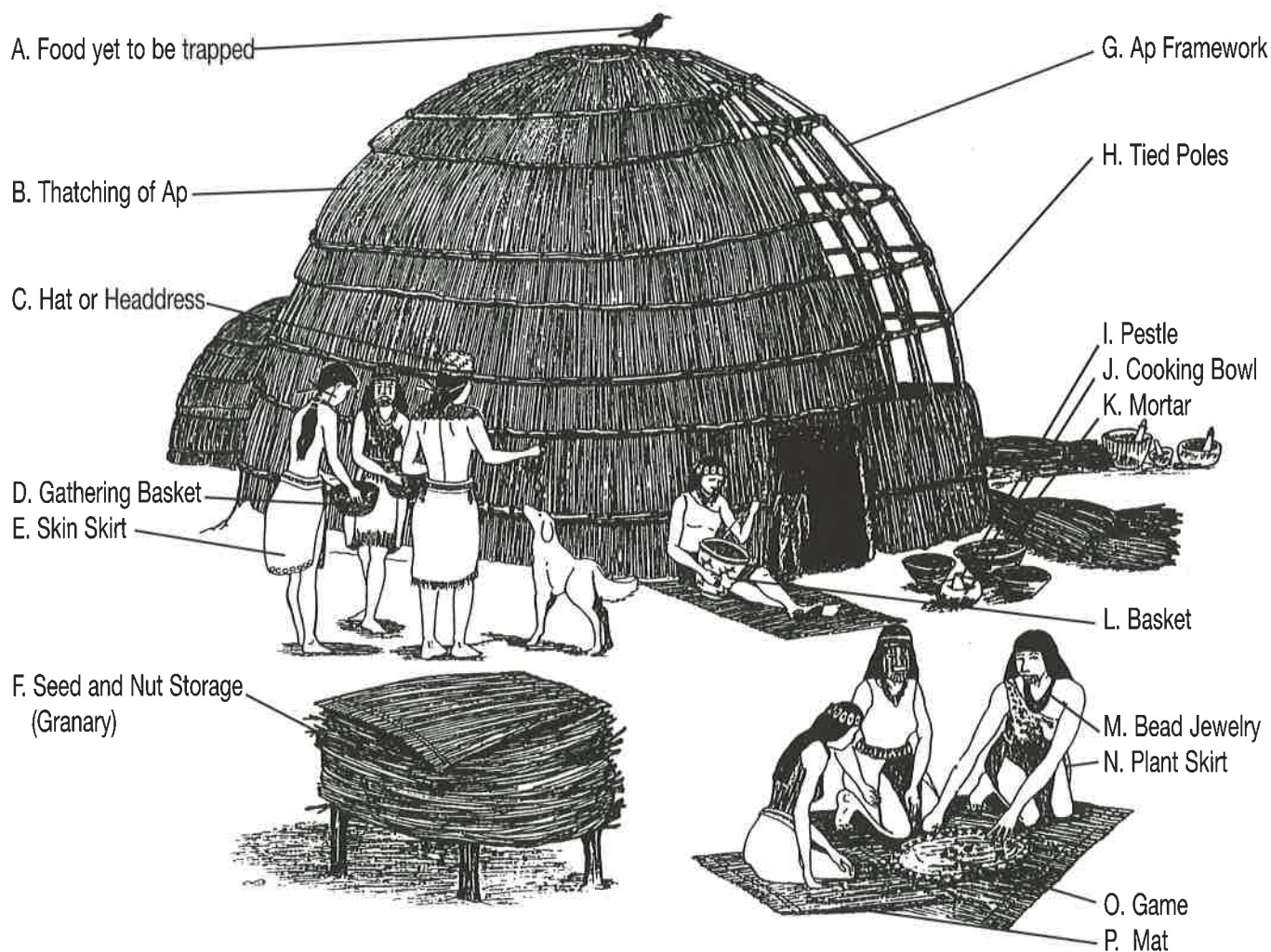
Resource Match



Teacher:

Answer on page 41.

During your visit, you saw a variety of natural resources the Chumash used. Fill in the blanks with one or more natural materials that are used to make the objects shown in the picture below. Use the resource list on the next page to help you. The first one is done!



A. Bird Meat, Feathers (for arrows) _____

B. _____

C. _____

D. _____

E. _____

F. _____

G. _____

H. _____

I. _____

J. _____

K. _____

L. _____

M. _____

N. _____

O. _____

P. _____

Chumash Uses of Natural Materials

Plants	Part Used	Uses
Milkweed	Stems	<i>String, sewing planks of tomol</i>
Oak	Acorns Bark	<i>Food staple: ground, leached, cooked Dye for hides</i>
Pine	Nuts Pitch Wood	<i>Food Glue, fire starter Canoes, bows</i>
Rushes (grass)	Stems	<i>Basketry and granary material</i>
Tule	Stems	<i>Thatching for houses, skirts, mats, dolls</i>
Willow	Wood Shoots Bark	<i>House and granary framework Basketry material Tying poles together; medicine</i>

Animals	Part Used	Uses
Abalone	Meat Shells	<i>Food Dishes, fishhooks, beads, decorations</i>
Birds	Meat Bones Feathers	<i>Food Flutes, whistles, awls Fletching for arrows, ceremonial dance skirts, headdresses</i>
Clams	Meat Shells	<i>Staple food Scrapers, beads</i>
Deer	Meat Sinew Bones Antlers Hooves Skins	<i>Food Bowstrings, tying, weaving Tools, beads, whistles Tools Rattles Clothing, hunting disguise, door flaps</i>



Chumash Uses of Natural Materials *cont.***Minerals****Uses*****Asphaltum (tar)****Glue and sealant for canoes; waterproofing baskets; used to make dice for walnut dice game****Sandstone****Grinding stones: mortars and pestles; manos and metates; large carved bowls****Steatite ("Soapstone")****Cooking bowls and frying pans, beads, arrowshaft straighteners, pipes***What If?**

Pick three resources from the natural materials list. Pretend these became extinct when the Chumash lived at Satwiwa. What are some of the items the Chumash would no longer have as a result of this?

Natural Resource***If extinct, the Chumash would no longer have:***

1. _____

2. _____

3. _____

Think about three items you use. What natural resources are they made from? How would you feel if they became extinct?

Item/Natural Resource***If extinct, I would feel:***

1. _____

2. _____

3. _____

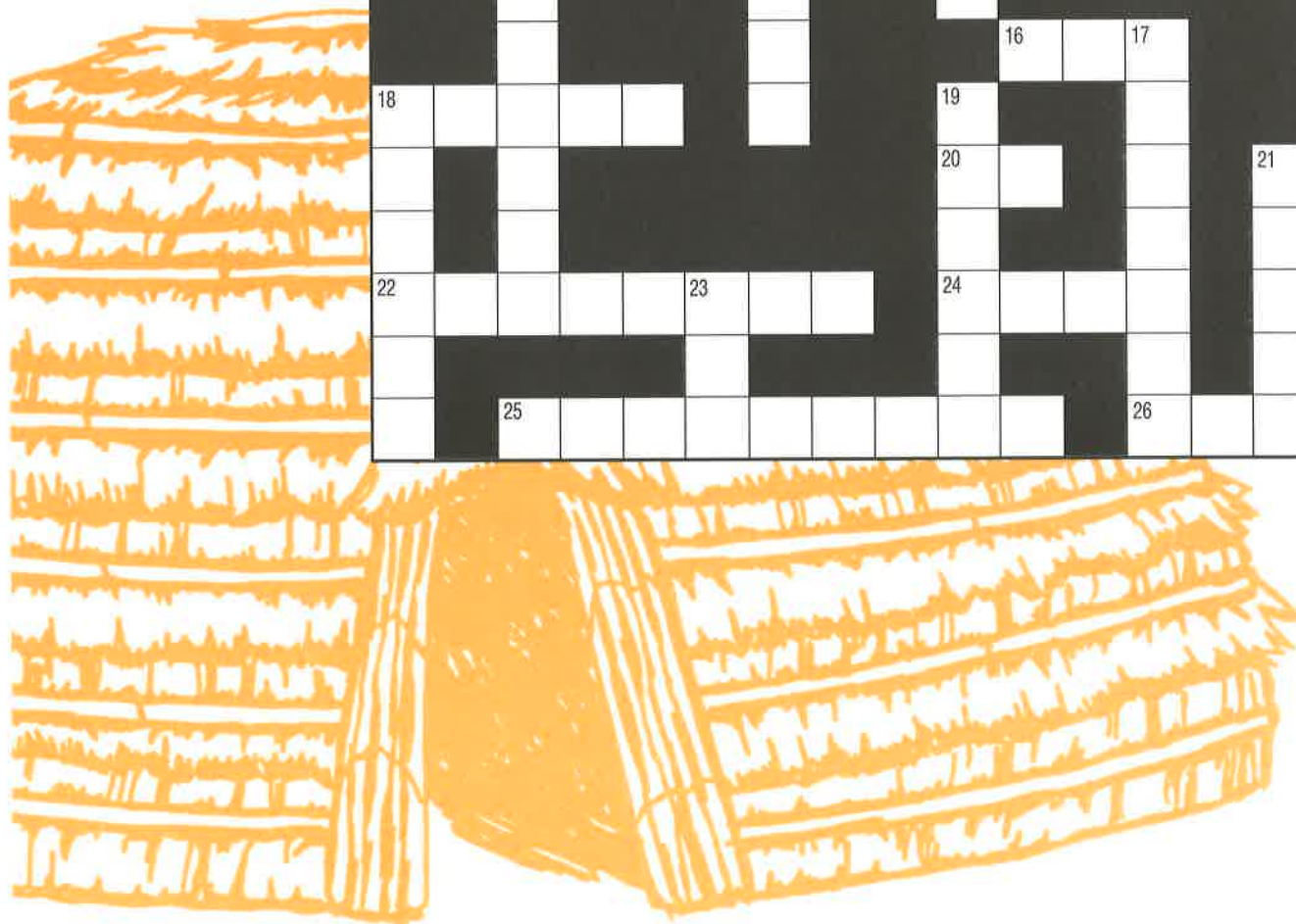
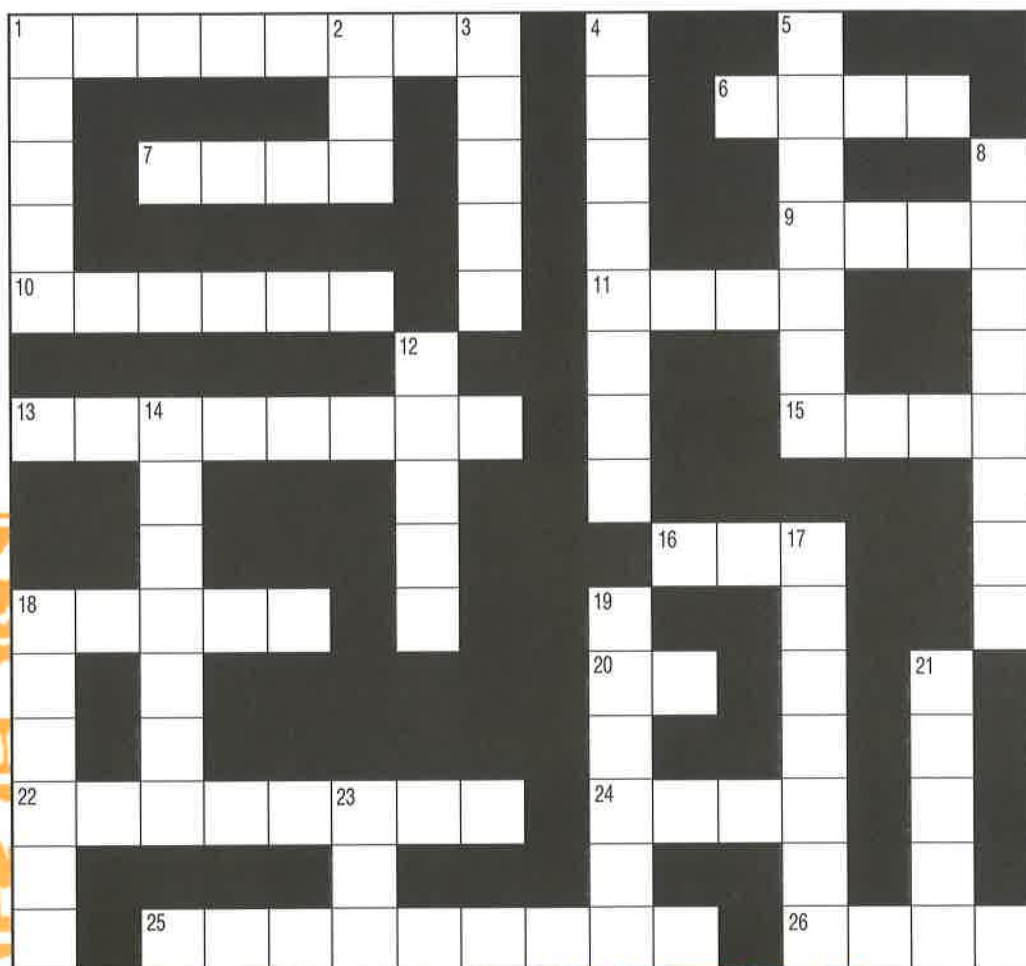
Native American & Nature Word Fun

Use what you have learned in class or read on other activity pages to complete the puzzle. All the words you'll need to solve the puzzle are on the bottom of the next page. For a real challenge, cover up the list and answer as many as you can without looking at the list!



Teacher:

Answers on page 42.



Across

1. Root of a plant used for soap, shampoo, brushes, fish poison and glue.
6. Plant burned during ceremonies. Also used to mask the scent of hunters from animals.
7. This animal is eaten. Its skin, bones, antlers, and hooves can be made into many items.
9. A rock, antler, or bone makes a great _____.
10. Flexible tree used to make the frame of the Chumash house.
11. Seeds of the sage plant that contain protein and give you energy.
13. The Chumash traded for this volcanic rock which makes excellent arrowheads and knives.
15. All of us, like the Chumash people, need a healthy environment in order to _____.
16. Asphaltum, or _____, is used as a glue or sealant.
18. Made from a plant stem, feathers and a chipped rock, this is used for hunting.
20. Round thatched house of the Chumash.
22. Water is a natural _____ we rely on.
24. An animal _____ can be made into a whistle, flute, tool, awl, or fishhook.
25. Just like the Chumash, we need biological _____ to survive.
26. Plant used for thatching on houses or made into mats, skirts, and sandals.

Down

1. An animal's tendon (connector of muscle and bone) used for bowstrings and for tying.
2. This wooden item is used to propel a plank canoe across the water.
3. The Chumash plank canoe is called a _____.
4. Many types of plants are used for food, clothing, shelter, and _____.
5. Much of this plant can be eaten or used to make mats and for roof thatching.
8. The Chumash made strings of beads from this shell and used them for money.
12. Common examples of these enjoyed by the Chumash include gambling and hoop-and-pole.
14. Since the Chumash had no written language, these were very important and were often told.
17. The Chumash showed _____ for Mother Earth and all forms of life.
18. Nuts from an oak tree that had to be ground and leached before eating.
19. The hide of this animal was cut into strips and woven into blankets.
21. After eating the animal, this part was used for jewelry, bowls and tools.
23. This giant grass is made into arrows and tubes to carry tobacco.








Word List

tule	live	sinew	acorns	sage
rabbit	olivella	tomol	rye	ap
resource	soaproot	oar	deer	obsidian
medicine	bone	games	respect	stories
cattail	chia	tar	diversity	
arrow	tool	willow	shell	

Mystery Word

What is the name of the group of people who lived successfully in the Santa Monica Mountains for over 10,000 years by taking care of the land? Descendants of these people are alive today and help teach others how to show respect for the earth.

Write the answers from the puzzle. Rearrange the letters in the squares to find the mystery answer.

1. 13 ACROSS 
2. 11 ACROSS 
3. 17 DOWN 
4. 12 DOWN 
5. 21 DOWN 
6. 4 DOWN 
7. 22 ACROSS 

Mystery answer: The _____ people.



Teacher:

Answer on page 42.

Santa Monica Mountains Mural

Looking further into biodiversity

Activity type:

Teacher-directed;
Coloring; Discussion
questions



Teacher:
Answers on
pages 43-44.

Procedure

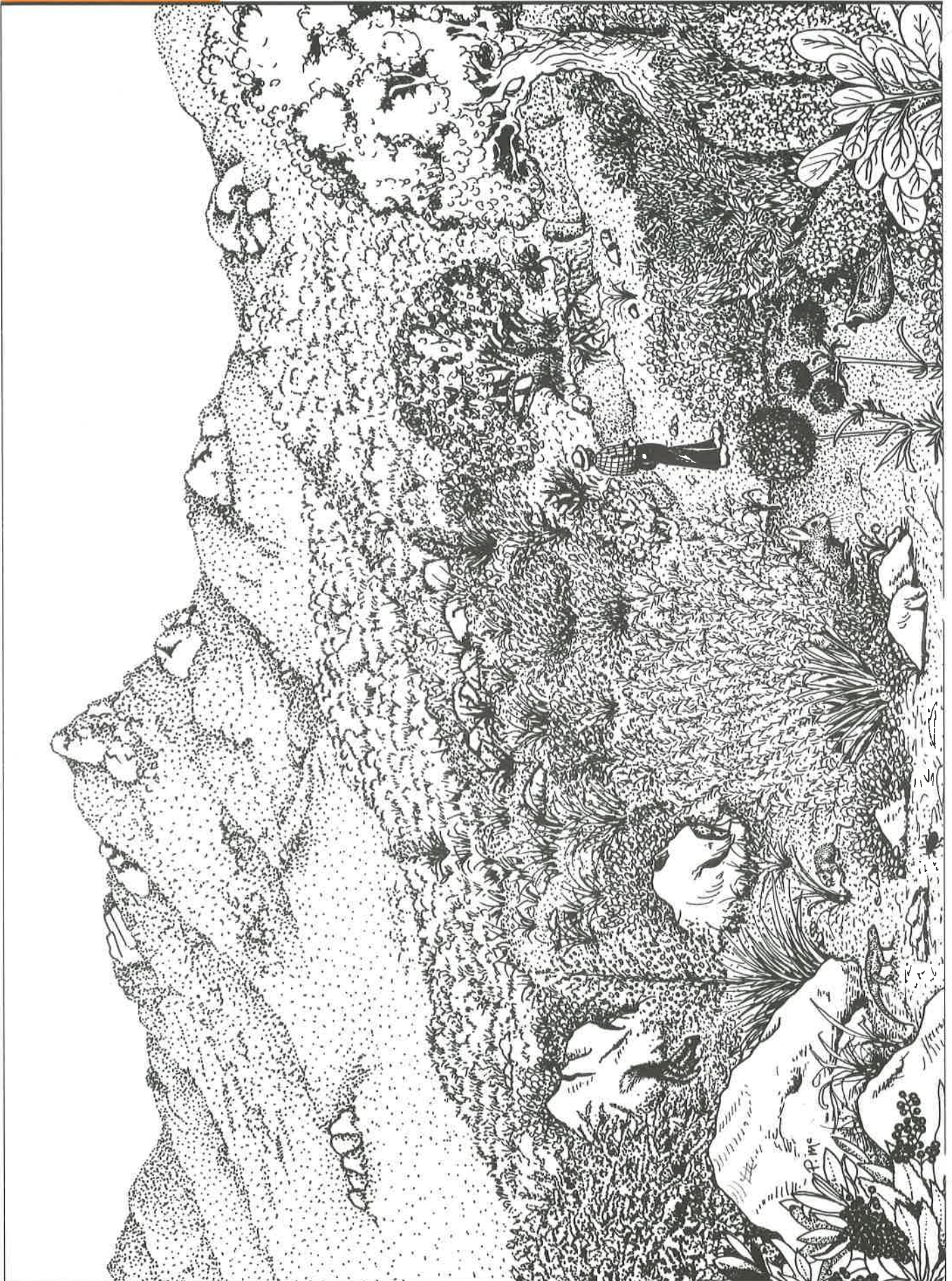
1. Divide your class into 5 groups.
2. Give each group a picture to color (can enlarge pictures to 11" x 17" using a photocopier if desired).
3. Explain the different communities each picture represents.
4. Have students list the plants and animals they see.
5. Match the pictures together to create a mural for display (in alphabetical order) from left to right.
6. Discuss the questions below with the class.

Explanation of pictures: Representations of the five major communities found in the Santa Monica Mountains and nearby beaches. Each community provides for the basic needs of plants and animals that live there. Inhabitants of these areas have special adaptations that help them survive. They are:

- A. Chaparral:** shrubby plants adapted to fire and drought
- B. Oak Woodland:** oaks with smaller trees, shrubs and herbs
- C. Grassland:** mostly native and non-native grasses
- D. Riparian/Stream:** area in and around streams and ponds
- E. Seashore:** plants, animals and landforms along the ocean's edge

Discussion Questions:

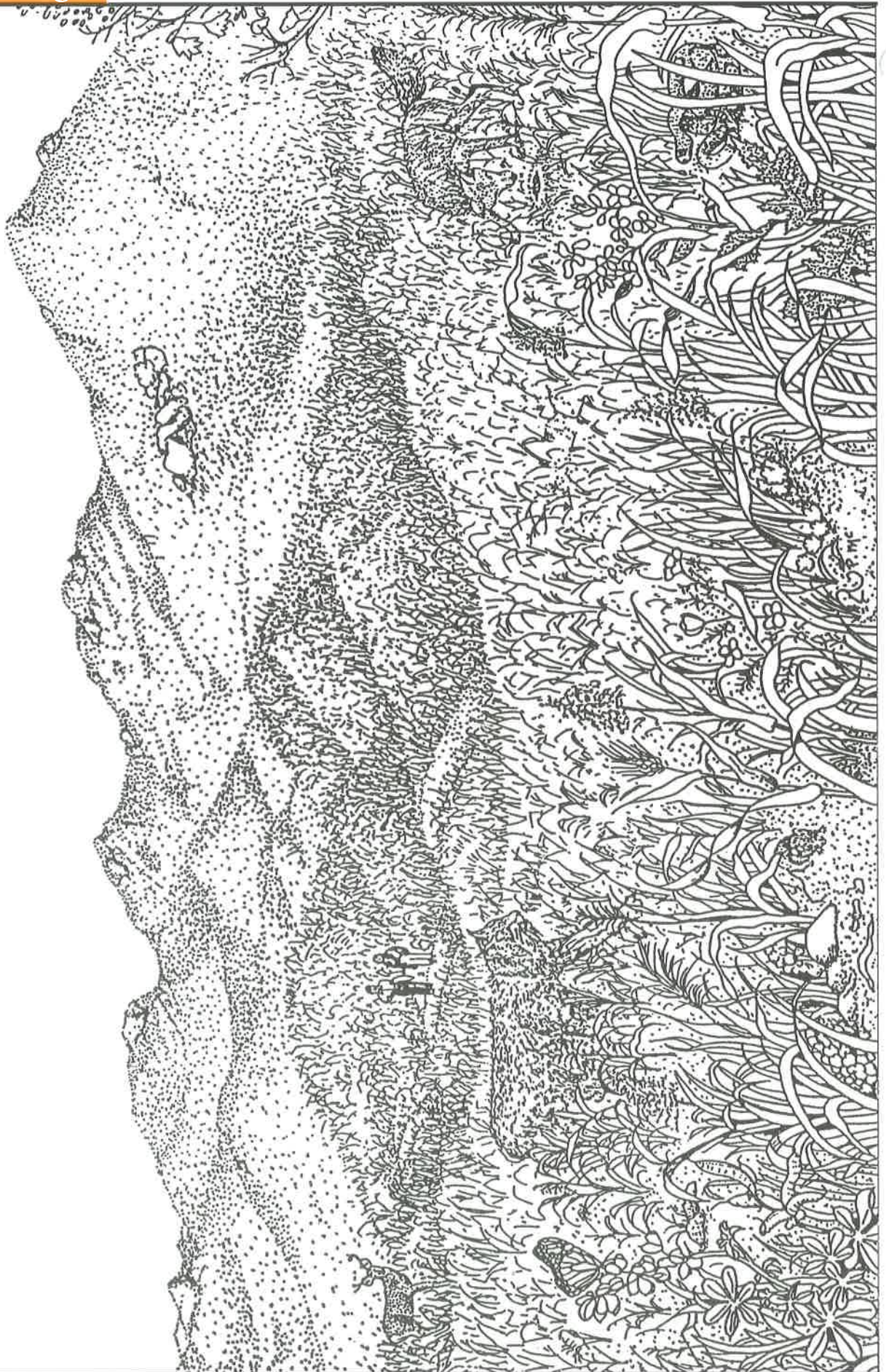
1. What are the similarities and differences among the communities?
2. If a community is destroyed or severely altered, could the inhabitants easily survive in another community? Explain.
3. Note the city in the background of the *Seashore* community.
 - a. Ask each group what would change if a city was built in their community.
 - b. What problems would arise?
 - c. Would it disturb the other four surrounding communities?
 - d. Would this affect the people in the pictures enjoying nature?
4. What can people do, or *not* do, to protect each community?



A. Chaparral: shrubby plants adapted to fire and drought

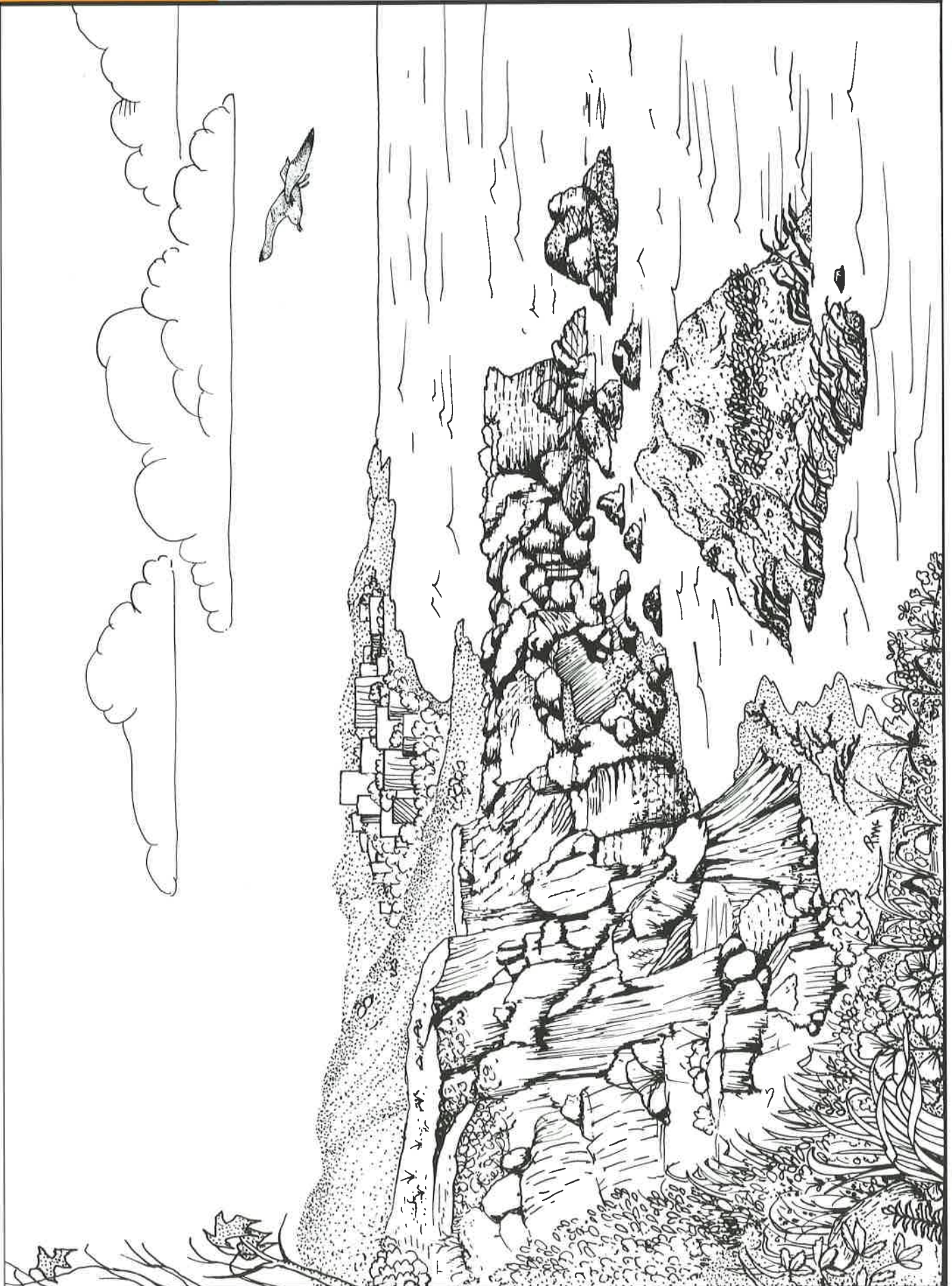


B. Oak Woodland: oaks with smaller trees, shrubs and herbs





D. Riparian/Stream: area in and around streams and ponds



E. Seashore: plants, animals and landforms along the ocean's edge

Landfill Bingo

Activity type:

Teacher-Directed

A fun game showing students what they can do to protect the earth and biodiversity and how to reduce the amount of materials filling up landfills! This saves habitats, natural resources, and energy.

Procedure

1. Cut the *Teacher's Copy* (page 39) into individual squares. Place these squares in a box so each piece can be randomly chosen.

2. Separate the class into small groups. Give each group one *Student's Game Sheet* (page 38).

3. Randomly choose a square and allow groups to discuss whether the item is recyclable, reusable or will end up in a landfill.

4. If their choice is recyclable, have them mark **R** in the corresponding box. If it is reusable, they mark the box with **U**. If it goes into a landfill, they can cross out the entire box. If the item is both recyclable and reusable, they may indicate so with both **R and U**.

5. **"Bingo"** is called when a row (diagonal, horizontal, or vertical) of the same options have been identified. Items with both **R's** and **U's** may be designated as either to make a bingo. For example, if a group has a row with all **R's** and one box with **R** and **U**, students have a bingo.

6. When a group calls "bingo," have a spokesperson for the group explain why the options for specific items were chosen.

Optional: Regardless of whether there is an early bingo, continue until each item is selected and discussed. Have each group come up with ideas on how to reduce landfill waste.

ALUMINUM CAN - Recycled into new cans.

CAP/CLOTHING - Broken down to natural fibers, can be recycled into new cloth. Reused as pillow stuffing or rags.

FOOD SCRAPS - Recycled through composting.

FURNITURE - Reused by someone else.

GLASS JUG - Recycled into a new bottle or reused as a flower vase.

LAWN CLIPPINGS - Recycled by composting.

LIGHT BULB - Cannot be recycled or reused. Ends up in landfills.

MILK CARTON - Recycled into paper towels or reused as storage container.

NEWSPAPERS - Recycled into paper or reused to make paper-maché.

PLASTIC BOTTLE - Can be recycled into carpets, pillows and even park benches.

SHOES - Reused by donating them.

STYROFOAM CUP - Most go to landfills.

TIN CAN - Recycled into new cans or used to make cars, bridges or bikes.

TIRES - Recycled into new products (i.e., pens) or reused as bumpers for boats.

TOY - Reused by someone else.

TREE - Recycled through composting.

Landfill Bingo Students's Game Sheet

R=RECYCLE

U=REUSE

L=LANDFILL



tin can



milk carton



newspapers



tree



lawn clippings



furniture



styrofoam cup



cap



aluminum can



glass jug



plastic bottle



toy



food scraps



light bulb



tires



shoes

Landfill Bingo Teacher's Copy

R=RECYCLE

U=REUSE

L=LANDFILL



tin can



milk carton



newspapers



tree



lawn clippings



furniture



styrofoam cup



cap



aluminum can



glass jug



plastic bottle



toy



food scraps



light bulb




tires



shoes

Language Activity

 See page 3 for
list of Chumash words.

Pick two animal words, one nature word, one object word and one people word—or more, if you like. On another piece of paper, write a short story about these using the Chumash words. Think of other things from the Chumash world to include in your story.

After your field trip to Satwiwa, make a list of 10 Chumash words for things you saw, heard, or talked about. Next to each Chumash word, write the English word and a fun fact about it.

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

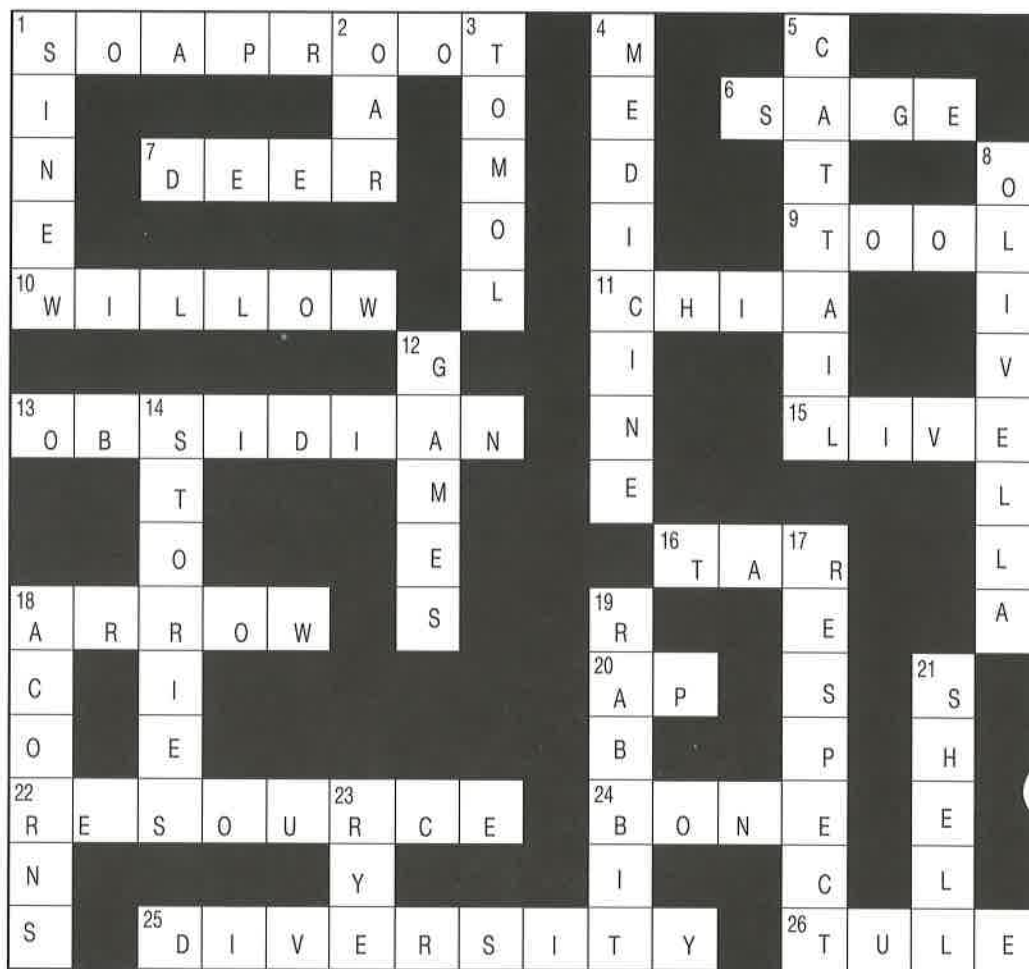
Resource Match

 Answers
for page 25.

- A. Bird Meat, Feathers (for arrows)
- B. Tule or Cattail
- C. Rushes, Grasses, Bird Feathers
- D. Rushes, Grasses, Willow
- E. Deer or Bird Skins
- F. Willow, Rushes, Tule
- G. Willow Poles
- H. Willow Bark or Milkweed
- I. Sandstone
- J. Soapstone, Steatite, Tar Lined Basket
- K. Sandstone
- L. Rushes, Grasses, Willow
- M. Abalone, Bones, Clam, Soapstone
- N. Tule and Bark
- O. Black Walnuts, Tar, Abalone
- P. Tule Stems

Native American & Nature Word Fun

 Answers
for page 28.



42

Mystery Word

 Answers
for page 30.

1. 13 ACROSS O B S I D I **A** N
2. 11 ACROSS C **H** I A
3. 17 DOWN R E S P E **C** T
4. 12 DOWN G A M E **S**
5. 21 DOWN S **H** E L L
6. 4 DOWN **M** E D I C I N E
7. 22 ACROSS R E S O **U** R C E

Mystery answer: The **CHUMASH** people.

Santa Monica Mountains Mural

Looking Further into Biodiversity

 Answers
for page 31.

A. Chaparral

Brush Rabbit
Buckwheat
California Quail
Ceanothus (Wild Lilac)
Chamise
Fence Lizard
Pocket Mouse
Manzanita
Spotted Skunk
Stink Beetle
Toyon
Yucca



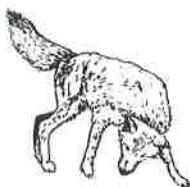
B. Oak Woodland

California Walnut
Coast Live Oak
Gopher Snake
Ground Squirrel
Pocket Gopher
Poison Oak
Red-tailed Hawk
Valley Oak



C. Grassland

Bobcat
California Poppy
Coyote



Lupine

Grasses - Introduced Annual
(oats, barley, rye)
Grasses - Native Perennial Bunch
Meadow Mouse
Monarch Butterfly
Mustard
Rattlesnake

D. Riparian/Stream

Anna's Hummingbird
California Bay
Maidenhair Fern
Mule Deer
Raccoon
Sycamore
Willow



E. Seashore

Limpet
Mussel
Surf Grass



Discussion Questions

 Answers
for page 31.

1. *What are the similarities and differences among the communities?* Plant/tree shape and size. Animals adapt differently (ex. Red-tailed hawk seen in oak woodland - hunts from the sky but prey wouldn't be as visible in a riparian environment, raccoon seen near stream uses water to clean its food). Many different kinds of plants and animals are found in each community.

2. *If a community is destroyed or severely altered, could the inhabitants easily survive in another community?* Discuss what could cause the destruction of a community. Possibilities include fire (short-term, since recovery will be quick and area will benefit from the fire in the long run), encroachment of homes or cities, pollution/toxic waste spills, aggressive invasion of non-native species of plants or animals.

It is debatable whether the inhabitants could survive in another community. Issues involved include overpopulating the new community and "throwing it off balance," availability of food sources, similarities between the inhabitants of the "destroyed" community and the inhabitants of the "new" community.

3. *A city would cause many changes, such as:* habitat loss, pollution (air, water, light and noise pollution), potential hazards from automobile and power line accidents, plant and animal loss due to poaching and introduction of non-native plants and animals.

4. *What can be done to protect each community?*

People can: pick up litter, support environmental laws/causes, recycle, reduce and reuse to prevent over use of natural resources, carpool or ride bikes, respect wildlife, plant trees.

People can avoid: causing pollution, chasing or taking wildlife, picking the flowers and plants, littering. *Note: Many other answers may be given by students.*

Glossary

abalone - ocean snail used as food; shell used for bowls, jewelry fishhooks, and decoration.

acorn - major food source for Chumash and most other California native peoples.

amulet - totem, charmstone; an animal or figure carved from soapstone or other material. Used for religious purposes by the Chumash and other native peoples.

ap - Chumash dwelling (home).

asphaltum - naturally occurring thick tar used to seal and waterproof baskets, tomols and other items. Also used as a glue, by itself or mixed with other substances (such as pine pitch).

awl - a tool made from bones used to make holes (for example, in leather) and for making coiled baskets.

biodiversity - biological diversity; a variety of living things in the same environment.

cattail - a long, thin, flat-leaved plant with flower stalk that looks like a “hot-dog-on-a-stick,” grows in or near water. Uses: root, stem and seeds for food; seed fuzz for starting fires or as baby diapers; leaves as thatching for aps.

chaparral - the community of brushy plants found in the hills and mountains of coastal southern California; a source of food and materials for the Chumash and other native people.

chia - one type of sage, but also refers to all sage seeds used as food, high in protein.

Chumash - Native people historically living in the western Santa Monica Mountains, northern Channel Islands, along the coast from Malibu to San Luis Obispo, and inland to the edge of the Central Valley (San Joaquin).

community - a group of plants and animals living together in a particular environment.

descendant - individual related to someone in the past (example—a child is a descendant of the parents, grandparents, etc.).

dialect - a different variety of a language (example—in Chumash territory, there are eight dialects of the Hoka language).

disguise - to change appearance so as not to be recognized.

drought - a period of time when there is little rain.

Glossary *cont.*

environment - physical conditions (land, air, water, climate) surrounding and affecting the life of plants and animals.

extinction - when a plant or animal disappears forever, due to the actions of people or nature.

fletching - arrow feathering which enables its flight.

Gabrielino/Tongva - native people historically living in the Los Angeles area. They differ from the Chumash in language and religion.

granary - large baskets on a raised platform, for storing acorns, seeds and other foods.

headdress - a type of head-covering, usually feathered and worn in ceremonies.

hemp - a fibrous plant used by the Chumash for making rope and other things.

Hokan - the language spoken by Chumash and related native peoples.

Juncus - one of the main basketry materials used by the Chumash.

leach - a way to remove poison or impurities by washing with water, especially acorns.

minerals - naturally occurring, non-living, solid materials that make up rocks and soil.

mortar - a bowl-like container made of a hard material (rock or wood) in which substances are crushed with a pestle (such as acorns or ochre for paint).

native - plant or animal that has lived in an area since prehistoric times.

obsidian - volcanic glass used for making arrowheads, knife blades and other sharp objects.

olivella - a small ocean snail. The shells were used by Chumash to make bead money.

pestle - a club-shaped hand tool used for grinding, crushing or mashing substances in a mortar.

resource - refers to land and water sites, scenery, plants, animals, minerals, archaeological and historical remains, etc.



Glossary *cont.*

riparian - the environment in and around streams or ponds.

rushes - grassy plants that grow in or near water, often used in basket making.

sinew - tendon of animal used for making strong rope, string and thread.

soaproot - a plant used for food, soap, shampoo, brushes, glue and stunning fish.

species - a group of plants or animals that are all alike, able to breed and produce offspring in their environment.

staple food - a primary food in the diet of a given culture (such as wheat, corn, acorns, etc.).

steatite (soapstone) - a heat-resistant type of rock that can be safely heated, carved into cooking bowls and pans, beads, pipes, amulets and other items.

sweathouse - rounded, mud or skin-covered structure used as a steambath to purify the body and spirit.

tendon - sinew; the connective tissue between bone and muscle. Used by native peoples for making strong rope, string or thread.

thatch - plant material used to cover a home.

tomol - the ocean-going Chumash plank boat or canoe.

tule - thick and long-leaved plant that grows in or near water. Used to thatch aps and to make baskets, mats and other woven items.

willow - trees that grow in or near water. Uses: as a building material (ap frame, other structures); for tools; for baskets; bark used as medicine (aspirin).

Publications

Three Categories

of Publications:

- A. Teacher Reference (in-depth)
- B. Student/Teacher Reference (simplified) - p. 52
- C. Literature (storybook) - p. 52

** = Highly Recommended

B = Bookstore — available for purchase and mail-order at:

Visitor Center Bookstore
401 W. Hillcrest Drive
Thousand Oaks, CA 91301
805-370-2301

Satwiwa Native American
Indian Cultural Center
4122 Potrero Road
Newbury Park, CA 91320
805-375-1930

L = Library — available for checkout by educators from:

National Park Service
Education Library
4126 Potrero Rd.
Newbury Park, CA 91320
805-498-0305

A. Teacher Reference

Ball, Edward K. *Early Uses of California Plants*. University of California Press, Berkeley, CA, 1962. Plant use by early inhabitants of California. **L**

Bean, Lowell J., and Blackburn, Thomas C. *Native Californians: A Theoretical Retrospective*. Ballena Press, Menlo Park, CA, 1976. Essays on California Indian cultural elements including Chumash economic system. (Technical) **L**

Blackburn, Thomas C. *December's Child*. University of California Press, Berkeley, 1975. Chumash oral narratives collected by ethnographer J.P. Harrington. (Some adult content) **B L**

** Caduto, Michael J., and Bruchac, Joseph. *Keepers of the Animals*. Fulcrum, Inc., Golden, CO, 1991. Native American Indian stories and wildlife activities for children. (Available elsewhere on tape.) **B L**

** Caduto, Michael J., and Bruchac, Joseph. *Keepers of the Earth*. Fulcrum, Inc., Golden, CO, 1989. Native American Indian stories and wildlife activities for children. (Available elsewhere on tape.) **B L**

** Caduto, Michael J., and Bruchac, Joseph. *Keepers of the Earth. Teachers Guide*. Fulcrum, Inc., Golden, CO, 1988. Bibliography and cultural information on many Native American groups. **L**

** Cornell, Joseph. *Sharing Nature with Children*. Dawn Publications, Nevada City, CA, 1979. Nature activities for children/students. **B L**

** Cornell, Joseph. *Sharing the Joy of Nature*. Dawn Publications, Nevada City, CA, 1989. Nature activities for all ages. **B L**

Cunningham, Richard W. *California Indian Watercraft*. EZ Nature Books, San Luis Obispo, CA, 1992. In-depth look at California Indian boats, with maps, photos, diagrams, descriptions, building techniques and historical overviews. **B L**

** Dale, Nancy. *Flowering Plants of the Santa Monica Mountains*. Capra Press, Santa Barbara, CA, 1986. Local plant guide with historic usage. **B L**

Eargle, Jr., Dolan H. *California Indian Country*. Trees Company Press, San Francisco, CA, 1992. A complete guide to present-day native groups, with maps, color photos, descriptions and historical overviews. **B L**

Eargle, Jr., Dolan H. *The Earth Is Our Mother*. Trees Company Press, San Francisco, CA, 1986. A guide to the Indians of California, their locales today, historic sites and cultural information. **B L**

Forbes, Jack. *Native Americans of California and Nevada*. Naturegraph Publishers, Inc., Happy Camp, CA, 1991. The evolution and modern-day issues of California and Nevada Indians. **B L**

** Gibson, Robert O. *The Chumash*. Chelsea House, New York, NY, 1991. One of a series on North American Indians, including the history and contemporary descendants of the Chumash. **B L**

** Heizer, Robert F. *Handbook of North American Indians*. Volume 8 - California, Smithsonian Institution, Washington, DC, 1978. Collected works on the California Indians, with chapters on the Chumash and Gabrielino Indians. **B L**

** Heizer and Elsasser. *The Natural World of the California Indians*. University of California Press, Berkeley, 1980. Basic information on California Indians and their environment, including Chumash. **L**

Hinton, Leanne. *Flutes of Fire*. Heyday Books, Berkeley, CA, 1994. Essays on California Indian languages. (Technical) **B L**

Hudson, Travis. *Guide to Painted Cave*. McNally and Loftun Publishers, Santa Barbara, CA, 1982. Describes Chumash Painted Cave State Historic Park, one of the few Chumash rock art sites accessible to the general public. **L**

Hudson, Travis, and Blackburn, Thomas, C. *The Material Culture of the Chumash Interaction Sphere, Volumes I - V*. Santa Barbara Museum of Natural History, Santa Barbara, CA, 1986. Guide to Chumash artifacts and their uses. **L**

** Hudson, Travis and Timbrook, Jan. *Chumash Indian Games*. Santa Barbara Museum of Natural History, Santa Barbara, CA, 1980. Historic games played by the Chumash. **L**

Hudson, Travis and Underhay, Ernest. *Crystals in the Sky: An Intellectual Odyssey Involving Chumash Astronomy, Cosmology and Rock Art*. Ballena Press/Santa Barbara Museum of Natural History, Santa Barbara, CA, 1978. An interesting fusion of anthropology and astronomy. **B L**

Hurtado, Albert L. *Indian Survival on the California Frontier*. Yale University Press, New Haven, CT, 1988. California Indian history, demographics and post-contact issues. (Technical) **B L**

Jackson, Robert H. *Indian Population Decline*. University of New Mexico Press, Albuquerque, NM, 1994. California Indian demographic information from early mission records. (Technical) **B L**

Keyworth, C.L. *California Indians*. Facts on File, Inc., New York, NY, 1991. Overview of California Indian culture as a whole, with full-page historic and present-day photos. **L**

Kroeber, A.L. *Handbook of the Indians of California*. Dover Publications, Inc., New York, NY, 1976. One of the earliest definitive anthologies of California Indian culture, circa 1925. **L**

McCawey, William. *The First Angelinos*. A Malki Museum Press/Ballena Press Cooperative Publication. 1996. A reference book on the Gabrielino Indians of Los Angeles. **L**

** Miller, Bruce W. *Chumash, A Picture of their World*. Sand River Press, Los Osos, CA, 1988. A well-illustrated look at Chumash history and material culture. **B L**

** Miller, Bruce W. *The Gabrielino*. Sand River Press, Los Osos, CA, 1991. A well-illustrated look at Gabrielino/Tongva history and material culture. **B L**

Niethammer, Carolyn. *American Indian Food and Lore*. Macmillan Publishers, New York, NY, 1974. Authentic recipes of Native American foods. **B L**

** Pavlik, Bruce M., and Muick, Johnson, Popper. *Oaks of California*. Cachuma Press., Inc., Los Olivos, CA, 1992. Complete guide to California oak trees, including Native American usage, with many color photos. **B L**

** Pfeifer, Luanne. *The Malibu Story*. Malibu Lagoon Museum, Malibu, CA, 1985. Illustrated history of Malibu, including Chumash. **B L**

Rawls, James J. *Indians of California, The Changing Image*. University of Oklahoma Press, Norman, Oklahoma, 1988. Post-contact exploitation of California Indians. (Technical) **L**

**** Santa Barbara Museum of Natural History Education Center.** *The Chumash People: Materials for Teachers and Students.* EZ Nature Books, San Luis Obispo, CA, 1991. Copy-ready Chumash stories, games, music and activities. **B L**

Swanson, Richard L. (for the State of California Department of Parks and Recreation). *Point Mugu-Leo Carrillo Teacher's Guide, Part III, the Data Book - Land, Life and Chumash Culture.* California State Printing Office, 1980. Introduction to the local environment and culture. **L**

Vane, Sylvia Brakke and Bean, Lowell John. *California Indians: Primary Resources.* Ballena Press, Menlo Park, CA, 1990. Resource guide to California Indian manuscripts, artifacts, documents, serials, music and illustrations. (Technical) **L**

**** Van Tilburg, Jo Anne.** *Ancient Images on Stone.* University of California, Los Angeles, CA, 1983. Photo-illustrated essays on descriptions, origins and meanings of California and Baja California rock art. **L**

**** Weatherford, Jack.** *Indian Givers.* Fawcett Columbine, New York, NY, 1988. American Indian contributions to world society. **L**

Western Regional Environmental Education Council. *Project Aquatic.* Boulder, CO, 1992. An activity guide emphasizing aquatic environments. **L**

Western Regional Environmental Education Council. *Project Learning Tree.* Washington, D.C., 1994. An activity guide emphasizing forests. **L**

Western Regional Environmental Education Council. *Project Wild.* Boulder, CO, 1985. An activity guide emphasizing wildlife. **L**

Westrich, LoLo. *California Herbal Remedies.* Gulf Publishing Co., Houston, TX, 1989. The history and use of native medicinal plants, including legends and lore. **B L**

**** York, Louise Armstrong.** *The Topanga Story.* Topanga Historical Society, 1992. Photo-illustrated history of Topanga, including Chumash and Gabrielino/Tongva. **B L**

B. Student/Teacher Reference

Brown, Vinson. *Native Americans of the Pacific Coast*. Naturegraph Publishers, Inc., Happy Camp, CA, 1990. Brief overviews and historical fiction stories of western coastal tribes. **L**

** Earthworks Group. *50 Simple Things Kids Can Do To Save The Earth*. Andrews and McMeel, Kansas City, MO, 1990. A kids' book turning knowledge into action. **B L**

** Faber, Gail, and Lasagna, Michele. *Whispers from the First Californians*. Magpie Publications, Alamo, CA, 1984. A classroom textbook on California Indians, including Chumash. **L**

** Gendar, Jeannine. *Grass Games and Moon Races*. Heyday Books, Berkeley, CA, 1995. California Indian games, toys and stories. **B L**

** Grant, Campbell. *Rock Paintings of the Chumash*. EZ Nature Books, San Luis Obispo Ca., 1992. Chumash art lesson resource. **B L**

Margolin, Malcolm. *The Way We Lived*. Heyday Books, Berkeley, CA, 1993. Wide range of California Indian stories, songs, reminiscences and pictures. **B L**

** Othmer, Sue and others. *Mountains to the Sea, A Visitor's Guide to the Santa Monica Mountains and Seashore*. 1988.

Basic guide to the plant communities, animals and native cultures of the Santa Monica Mountains and seashore. **B L**

Othmer, Sue (for National Park Service). *Santa Monica Mountains Naturalist's Notebook*. A collection of papers on the natural and cultural history of the Santa Monica Mountains and seashore. **L**

** Santa Barbara Museum of Natural History Education Center. *California's Chumash Indians*. EZ Nature Books, San Luis Obispo, CA, 1990. A Chumash primer of basic facts and information. **B L**

C. Literature

** Baylor, Byrd. *Hawk, I'm Your Brother*. Macmillan Publishing Co., New York, NY, 1976. Fictional story of modern-day Indian boy. **B L**

** Boardman, Matt. *Badger Claws of Ojai*. Idea Factory, Ventura County Educational Service Center, Camarillo, CA, 1971. Historical fiction of mainland Chumash life told through the eyes of a Chumash boy. **L**

** Curry, Jane Louise. *Back in the Before Time*. McElderry Books, New York, NY, 1987. Tales of the California Indians retold. **L**

** DeAngulo, Jaime. *Indian Tales*. Noonday Press, New York, NY, 1990. Native American animal legends and stories. **L**

** Duvall, Jill D. *The Chumash*. Children's Press, Chicago, IL, 1994. Young children's large-print overview of Chumash culture, with many color photos and illustrations. **B L**

** Gifford, Edward W., and Block, Gwendoline Harris. *Californian Indian Nights*. University of Nebraska Press, Lincoln, Nebraska, 1990. California Indian tales, legends and background. **L**

** Lee, Melecent. *Indians of the Oaks*. San Diego Museum of Natural History, CA, 1989. Historical fiction describing Indian lifestyles in Orange and San Diego counties. **L**

Maxwell, Jr., Thomas J. *The Temescals of Arroyo Conejo*. California Lutheran College, Thousand Oaks, CA, 1982. Fanciful collection of historical fiction stories, locally-based, with essays on present-day and recent Chumash individuals. (Some factual liberties taken.) **L**

** Moore, Reavis. *Native Artists of North America*. John Muir Publications, Santa Fe, New Mexico, 1993. Photo-illustrated biographical essays on Native American artists with native craft activities. **B L**

** Nechodom, Kerry. *The Rainbow Bridge*. Sand River Press, Los Osos, CA, 1992. Simplified, illustrated version of a well-known Chumash creation story. **B L**

** O'Dell, Scott. *Island of the Blue Dolphins*. Dell Publishing, New York, NY, 1987. Popular story about a young California Indian girl in the 1800's. **B L**

** Preble, Donna. *Yamino Kwiti*. Hydat Books, Berkeley, CA, 1983. Historical fiction on Indian life in the Los Angeles area. **L**

** Sanger, Kay. *When the Animals Were People*. Malki Museum Press, 1983. Simplified versions of Chumash stories. **B L**

** Spizzirri, Linda. *California Indians*. Spizzirri Publishing, Inc., Rapid City, SD, 1986. A "read and color" book with basic facts on major California tribes. **B L**

** Wood, Audrey. *The Rainbow Bridge*. Harcourt Brace and Company, San Diego, CA, 1995. Vivid retelling of Chumash creation story, with full-color illustrations. **B L**

Museums, Field Trips & Educational Groups

Albinger Archaeological Museum

113 East Main Street
Ventura, CA 93001
805-648-5823

American Indian Resource Center

L.A. County Library
6518 Miles Avenue
Huntington Park, CA 90255
323-583-1461

Antelope Valley Indian Museum

15701 Ave. M
(150th St. East and Ave. M)
Lancaster, CA 93534
661-942-0662

Autry Museum of Western Heritage

4700 Western Heritage Way
Los Angeles, CA 90027-1462
323-667-2000
Historical displays of the early
West and Southwest.

Bowers Museum

2002 N. Main Street
Santa Ana, CA 92706
714-567-3600

California Academy of Science

Golden Gate Park
San Francisco, CA 94118
415-750-7159

California State Indian Museum

26 and K Street
Sacramento, CA 95816
916-324-0539

Carpinteria City Hall

5775 Carpinteria Ave.
Carpinteria, CA 93013
805-684-5405
Chumash paintings.

Carpinteria Valley Museum of History and Historical Society

956 Maple Ave.
Carpinteria, CA 93013
805-684-3112
Chumash artifacts, local history.

Chumash Interpretive Center

3290 Lang Ranch Parkway
Thousand Oaks, CA 91360
805-492-8076
Local Chumash artifacts, displays,
educational and wildlife programs.

**Chumash Painted Cave State
Historic Park**

San Marcos Pass (Hwy 154)
to Painted Cave Road.
Chumash cave paintings.
Contact: *California Department
of Parks & Recreation*
Gaviota Area Administration
805-968-1711

Cold Creek Docents

1970 McKain Road
Calabasas, CA 91302
818-346-9620

El Presidio de Santa Barbara

123 East Cannon Perdido St.
Santa Barbara, CA 93101
805-966-9719
Historical exhibits.

Friends of Satwiwa

4126 W. Potrero Road
Newbury Park, CA 91320
805-499-2837

**La Purisima Mission
State Historic Park**

2295 Purisima Road
Lompoc, CA 93436
805-733-3713
Demonstration ap (Chumash
house), displays of mission life
in reconstructed buildings. Self-
guided and docent-guided tours.

Lompoc Museum

200 S. "H" Street
Lompoc, CA 93436
805-736-3888
Chumash artifacts and local history.

**Los Angeles County Museum
of Natural History**

Exposition Park
Los Angeles, CA 90007
213-763-3466
Anthropology, natural history, and
guided tours for school groups.
Offsite visits to schools with
EarthMobile and SeaMobile.

Los Encinos State Historic Park

16756 Moorpark St.
Encino, CA 91436
818-784-4849

Malibu Creek Docents

1925 Las Virgenes Road
Calabasas, CA 91302
818-889-5037

**Malibu Lagoon Museum
and Docents**

Malibu Lagoon State Beach
P.O. Box 291
Malibu, CA 90265
310-456-8432
Local history and pre-history,
artifacts and displays.

Mission Santa Ines

1760 Mission Drive
Solvang, CA 93463
805-688-5630
Early mission site.

**Morro Bay Museum
of Natural History**

State Park Road
Morro Bay, CA 93442
805-772-2694
Chumash exhibits, docent presentations, docent-guided tours.

Mountains Education Program

15601 Sunset Blvd
Pacific Palisades, CA 90272
310-454-1395

**Ojai Valley Museum
and Historical Society**

109 S. Montgomery
Ojai, CA 93023
805-640-1390
Inland Chumash and local natural history.

**Resource Conservation District
of Santa Monica Mountains**

122 N. Topanga Canyon Blvd.
Topanga, CA 90290
310-455-1030

San Buenaventura Mission Museum

225 E. Main Street
Ventura, CA 93001
805-643-4318
Early mission site and exhibits on Chumash and local history.

**San Luis Obispo
Children's Museum**

1010 Nipomo Street
(Monterey & Nipomo Streets)
San Luis Obispo, CA 93401
805-544-5437
Chumash artifacts and exhibits.

**San Luis Obispo County
Historical Museum**

696 Monterey Street
San Luis Obispo, CA 93401
805-543-0638
Chumash artifacts and exhibits.

San Miguel Mission

P.O. Box 69
San Miguel, CA 93451
805-467-3256

Santa Barbara Mission

Upper end of Laguna Street
2201 Laguna Street
Santa Barbara, CA 93105
805-682-4713
Self-guided tours and local history.

**Santa Barbara Museum
& Historical Society**

136 E. De la Guerra St.
Santa Barbara, CA 93101
805-966-1601
Guided tours available.

**Santa Barbara Museum
of Natural History**

2559 Puesta del Sol Road
Santa Barbara, CA 93105
805-682-4711
Exhibits on Chumash and North
American Indians, natural history.
Guided tours, field trips, auditorium
lectures, educational programs.

**Santa Maria Valley
Historical Society Museum**

616 South Broadway
Santa Maria, CA 93454
805-922-3130
Chumash artifacts and exhibits.

**Santa Monica Mountains
National Recreation Area**

401 W. Hillcrest Drive
Thousand Oaks, CA 91301
805-370-2301
National Park Service Visitor Center
with displays and information.

**Santa Ynez Indian Reservation
(Chumash)**

Santa Ynez, CA 93460
Tribal meeting hall.
805-688-7997

**Satwiwa Native American
Indian Culture Center**

4122 Potrero Road
Newbury Park, CA 91320
805-375-1930
Weekend programs hosted by
Native American Indians; outdoor
demonstration ap and indoor
interpretive exhibits (site operated
by the National Park Service).

Southwest Museum

234 Museum Drive
Highland Park, CA 90042
323-221-2163
Exhibits on Native Americans of
California, the Southwest, the Plains,
and the Northwest Coast. Tours and
educational programs available.

Stagecoach Inn

51 South Ventu Park Road
Newbury Park, CA 91320
805-498-9441
Chumash artifacts and local
historical exhibits.

Topanga Canyon Docents

5400 Lindley, #212
Encino CA 91316
310-535-9400

TreePeople

12601 Mulholland Dr.
Beverly Hills, CA 90210
818-753-4600
Tree farm, educational programs.

**Ventura County Museum
of History and Art**

100 East Main Street
Ventura, CA 93001
805-653-0323
Chumash and local historical
exhibits. Tours and educational
programs available.

William O. Douglas

Outdoor Classroom

2600 Franklin Canyon Drive
Beverly Hills, CA 90210
310-858-3090

**Will Rogers State Historic Park
and Docents**

1501 Will Rogers State Park Road
Pacific Palisades, CA 90272
310-454-8212